



RECEIVED
JAN 19 1999
FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

January 19, 1999

Margalie Roman Salas
Secretary
Federal Communications Commission
445 12 Street, SW
Room TW - A325
Washington, D.C. 20554

Dear Ms. Salas:

RE: CC Docket No. 98-166

**Direct Case Filing of the United States Telephone Association,
National Telephone Cooperative Association, National Rural
Telecom Association, Organization for the Promotion and Advancement of
Small Telecommunications Companies, Independent Telephone and
Telecommunications Alliance, and National Exchange Carrier Association**

Attached is the joint direct case filing of the above-referenced ILEC trade associations. In addition to the direct case filing, an appendix of materials referenced in the testimony of Dr. William Avera is attached for the Commission's convenience.

Should you have any questions regarding this filing, please contact the undersigned counsel.

Sincerely,

A handwritten signature in black ink that reads "Keith Townsend".

Keith Townsend
Director Legal & Regulatory Affairs
& Senior Counsel

No. of Copies rec'd 044
List ABCDE

Before the
Federal Communications Commission
Washington, D.C. 20554

RECEIVED

JAN 19 1999

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
)
)

Prescribing the Authorized)
Unitary Rate of Return for Interstate)
Services of Local Exchange Carriers)
_____)

CC Docket No. 98-166

**JOINT DIRECT CASE AND COMMENTS
OF LOCAL EXCHANGE CARRIER ASSOCIATIONS**

FILING ASSOCIATIONS:

United States Telephone Association

National Telephone Cooperative Association

National Rural Telecom Association

Organization for the Promotion and
Advancement of Small Telecommunications
Companies

Independent Telephone and Telecommunications
Alliance

National Exchange Carrier Association

January 19, 1999

SUMMARY

The Local Exchange Carrier Associations are deeply concerned about this proceeding because its outcome will impact the ability of their members, incumbent LECs operating in rural and urban areas throughout the United States, to serve the public. An inadequate authorized interstate rate of return would harm the customers of all LECs, and especially the customers of those LECs subject to rate-of-return regulation.

The Associations therefore urge the Commission not to conduct a full-blown represetation proceeding at this time. Rather, the Commission should devote its resources to resolving the more important issues that are central to achieving the universal service and other goals of the Communications Act. In doing so, the Commission would reduce the regulatory risks of incumbent LECs and avoid the potential for an inadequate represetation to disrupt key ongoing proceedings such as universal service and access reform.

If the Commission does choose to act in this proceeding, it should increase the prescribed rate of return. As the expert testimony attached to this direct case demonstrates, the current authorized interstate rate of return of 11.25% is a conservative estimate of incumbent LECs' current and prospective capital costs. These costs, in turn, reflect the high levels of risk that LECs face in the telecommunications marketplace. The current authorized rate of return thus should be considered a lower bound for any represetation.

Incumbent LECs face ever-increasing competitive, regulatory, and technological risks and uncertainty providing local exchange and exchange access service. Because of such risks, LECs must obtain larger portions of their capital through equity funding. At the same time, many LECs, especially those that cannot issue investment-grade securities, rely on

relatively high cost debt financing. These factors more than offset the decreases in broad-based interest rates since the last represcription proceeding in 1990.

In this regard, the Commission should analyze incumbent LECs' capital structure based on market values, not book values as assumed in the Notice in this proceeding. The book-value capital structure of the Notice is distorted by writeoffs, other accounting adjustments, and the general effect of historical regulatory decisions.

If the Commission sets the authorized rate of return too low, investors in and customers of rate-of-return LECs will directly suffer the ill-effects of reduced returns and insufficient capital. Price cap LECs will also suffer from decreased capital availability as a result of such a Commission decision, which would be perceived as adverse to investors. With insufficient capital, LECs will be less able to invest in the infrastructure and advanced services needed for rural America, and their customers will not benefit from such services.

The Commission also should either maintain or increase the threshold rate of return for the low-end formula adjustment mechanism ("LFAM") for price cap LECs. The issues regarding the LFAM for price cap LECs are distinct from the cost of capital considerations that apply for rate-of-return regulation. An inadequate LFAM threshold would diminish investor confidence and impair LECs' incentive for future investment. This concern is particularly acute at present, when LECs face increased competitive, regulatory, and technological risks.

TABLE OF CONTENTS

	<u>Page</u>
SUMMARY	i
I. INTRODUCTION	1
II. THE AUTHORIZED INTERSTATE RATE OF RETURN MUST BE ADEQUATE FOR LECs TO ATTRACT CAPITAL	5
A. The Risks That Incumbent LECs Face Have Grown And Continue to Grow	5
1. Competitive Risks	5
2. Regulatory Risks	6
3. Technological Risks	11
B. The Present Authorized Rate of Return Is Low For Purposes of Adequate Capital Recovery	12
III. THE THRESHOLD FOR THE LOW-END FORMULA ADJUSTMENT MECHANISM SHOULD BE MAINTAINED OR INCREASED	14
IV. CONCLUSION	16

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of)

Prescribing the Authorized) CC Docket No. 98-166
Unitary Rate of Return for Interstate)
Services of Local Exchange Carriers)
_____)

JOINT DIRECT CASE AND COMMENTS
OF LOCAL EXCHANGE CARRIER ASSOCIATIONS

I. INTRODUCTION

The Local Exchange Carrier Associations (the "Associations")^{1/} hereby submit their joint direct case and comments in the above-captioned prescription proceeding, pursuant to sections 65.103(b), 65.104(a), and 65.105(a) of the Commission's Rules.^{2/}

The Associations are deeply concerned about this proceeding because its outcome will impact the ability of their members -- incumbent local exchange carriers ("LECs") operating in rural and urban areas throughout the United States -- to serve the public. An inadequate

^{1/} The Associations are the United States Telephone Association ("USTA"), the National Telephone Cooperative Association ("NTCA"), the National Rural Telecom Association ("NRTA"), the Organization for the Promotion and Advancement of Small Telecommunications Companies ("OPASTCO"), the Independent Telephone and Telecommunications Alliance ("ITTA"), and the National Exchange Carrier Association ("NECA").

^{2/} See 47 C.F.R. §§ 65.103(b), 65.104(a), and 65.105(a). Sections I and II of this filing are part of the Associations' direct case submission responding to paragraphs 1 through 50 of the above-captioned Notice Initiating a Prescription Proceeding and Notice of Proposed Rulemaking, FCC 98-222 (rel. Oct. 5, 1998) (the "Notice"). Section III of this filing contains the Association's initial comments on the rulemaking proposals in paragraphs 51 through 55 of the Notice.

authorized interstate rate of return would harm the customers of all LECs, and especially the customers of those LECs subject to rate-of-return regulation. Rate-of-return LECs serve only about seven percent of the access lines in the United States, largely in rural areas. These LECs thus face unique challenges in providing universal service while addressing competition as mandated by the Communications Act of 1934 (the "Act").^{3/} Because many rate-of-return LECs have very limited customer bases, the loss of their few business customers to competitors can place these LECs and their residential customers at serious risk.

If the Commission chooses to act in this proceeding, it should increase the prescribed rate of return. As the attached expert testimony of Dr. William Avera demonstrates, the current authorized interstate rate of return of 11.25% is a conservative estimate of all LECs' current and prospective capital costs.^{4/} These costs, in turn, reflect the high risk levels that LECs face in today's telecommunications marketplace. The current authorized rate of return thus should be considered a lower bound for any represcription.

The Avera testimony shows that LECs continue to face increasing competitive, regulatory, and technological risks and uncertainty in their core business of providing local exchange and exchange access service. As a result of such risks, LECs must obtain larger

^{3/} The deregulation of other industries, such as the airline industry, has failed to meet this challenge for rural America. See Frank Swoboda, *Stranded by Airline Deregulation*, Wash. Post, Jan. 2, 1999, at F1.

^{4/} See Comments of Dr. William E. Avera, CFA, attached *infra* ("Avera testimony") at 4, 5, 38. Attached to the Avera testimony are Dr. Avera's resume, two technical exhibits, labeled WEA-1 and WEA-2, and an explanation of Dr. Avera's capital structure calculations. Together with this filing, the Avera testimony and exhibits constitute the Associations' direct case submission, which is less than 70 pages. See 47 C.F.R. § 65.104. For the Commission's convenience, the Associations are also filing concurrently with the direct case submission an appendix consisting of back-up materials referenced in the Avera testimony and this filing.

portions of their capital through equity funding. At the same time, many LECs, especially those that cannot issue investment-grade securities, rely on relatively high cost debt financing. These factors offset the decreases in broad-based interest rates (e.g., Treasury bond rates) since the last represcription proceeding in 1990.^{5/}

As Dr. Avera states, a represcription would have extremely significant effects for all incumbent LECs because the financial markets view the authorized rate of return as a primary indicator of the Commission's prospective regulatory treatment of these LECs.^{6/} An inadequate authorized rate of return would only increase the risks and uncertainties that all LECs face, to the detriment of the public interest. Indeed, Dr. Avera's testimony shows that if the rate of return is set too low, investors in and customers of rate-of-return LECs will directly suffer the ill-effects of reduced returns and insufficient capital.^{7/} At the same time, price cap LECs will suffer from decreased capital availability as a result of such a Commission decision, which would be perceived as adverse to investors. With insufficient capital, LECs will be less able to invest in the infrastructure needed to bring advanced services to rural America, and their customers would not receive the benefits of such infrastructure. Such a result, of course, would be contrary to the intent of section 706 of the Act, as well as the Commission's recent proceedings on advanced services.^{8/}

^{5/} See *id.* at 3-4.

^{6/} See *id.* at 4-5. This proceeding also affects price cap LECs through the remaining, though limited, links between rate-of-return regulation and price cap regulation.

^{7/} See *id.* at 9-10.

^{8/} See 47 U.S.C. § 706; *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, FCC 98-188 (rel. Aug. 7, 1998), *Inquiry Concerning the Deployment of Advanced Telecommunications Capability*, CC Docket No. 98-146, Notice of Inquiry, FCC 98-187 (rel. Aug. 7, 1998).

Consistent with Dr. Avera's testimony, the Associations believe that the Commission should not conduct a full-blown represcription proceeding at this time.^{9/} Rather, the Commission's resources are best devoted to resolving other issues that are central to achieving the universal service and other goals of the Act. The Commission thereby would reduce the regulatory risks of incumbent LECs and avoid the potential for an inadequate represcription to disrupt important ongoing proceedings such as universal service and access reform. However, if the Commission chooses to pursue this proceeding in detail, the authorized rate of return should be increased.^{10/}

If a represcription were to take place, under no circumstances should the Commission attempt to prescribe different rates of return for LECs' interstate access and interexchange services.^{11/} Any such attempt would be arbitrary and would constitute harmful micromanagement of LEC operations. To the extent that a prescribed rate of return would be necessary for determining universal service support,^{12/} the current authorized rate is at the lower limit of the range that should be used.

^{9/} See Avera testimony at 4-5, 37-38. There is no legal requirement that the Commission must perform a represcription in the current docket. See *Amendment of Parts 65 and 69 of the Commission's Rules to Reform the Interstate Rate of Return Represcription and Enforcement Processes*, 10 FCC Rcd 6788 (1995) ¶¶ 31-32 (replacing prior biennial represcription "trigger"), ¶ 41 (stating that "we need not specify any minimum time between represcription proceedings").

^{10/} As a separate issue discussed below in Section III, the threshold for the low-end formula adjustment mechanism for price cap LECs should be maintained or increased.

^{11/} See Notice ¶ 8.

^{12/} See *id.*

II. THE AUTHORIZED INTERSTATE RATE OF RETURN MUST BE ADEQUATE FOR LECs TO ATTRACT CAPITAL

A. The Risks That Incumbent LECs Face Have Grown And Continue to Grow

Because competitive, regulatory, and technological risks have increased for all LECs since the last represcription in 1990, the current prescription is at the lower limit of LECs' capital costs. Because all of these factors have been present in the telecommunications industry since well before the last represcription, the current authorized rate of return reflects to some extent the types of risks now faced by incumbent LECs. However, because these risks are growing and will continue to do so, the authorized rate of return should be increased.

1. Competitive Risks

Competitive risks for incumbent LECs, as well as other industry participants, have grown substantially since the last represcription. As competitive risks for these LECs grow, their cost of capital increases.^{13/} As is well known, the Telecommunications Act of 1996 (the "1996 Act") changed the structure of the telecommunications industry, most notably by opening to competition those LEC markets that previously were subject to exclusive regulatory franchises.^{14/} In the aftermath of the 1996 Act, however, interexchange carriers ("IXCs") such as AT&T and MCI WorldCom have chosen to enter exchange access markets very selectively, using special access arrangements to gain the LECs' most financially

^{13/} See Avera testimony at 13.

^{14/} See, e.g., section 253 of the Act, 47 U.S.C. § 253; see also Avera testimony at 14-16.

desirable high-volume business customers. This strategy provides no benefit to most residential customers, who require switched access. At the same time, IXCs attempt to use the regulatory process, rather than competitive entry, to reduce all access prices. Such gaming of the marketplace and regulation greatly increases the risks of all incumbent LECs, especially the many rate-of-return LECs in rural areas that serve only a few business customers.^{15/}

As the Avera testimony shows, an inadequate prescribed rate of return would only reinforce the IXCs' current strategic behavior by confirming that investment in exchange access markets should be avoided.^{16/} In contrast, incumbent LECs necessarily will be subject to ongoing competitive threats while continuing to provide interstate access and other services.

2. Regulatory Risks

Even as competitive risks have grown, the regulatory risks to LECs and their customers from implementation of the 1996 Act have increased dramatically. Several of the Commission's implementation decisions, some of which are either incomplete or under judicial review, limit incumbent LECs' ability to recover their reasonable costs of providing service to the public.^{17/} Important examples include the Commission's decisions regarding

^{15/} See *id.* at 11. At the same time, the major IXCs are investing heavily in foreign operations. See *id.* at 11-12.

^{16/} See *id.* at 12.

^{17/} See *id.* at 16-19.

interconnection, unbundling, and reciprocal compensation,^{18/} as well as the fundamental changes being implemented in the Commission's access charge and universal service systems.^{19/}

As Dr. Avera notes, at the same time that the 1996 Act encourages competitive entry, the regulated average rates charged by incumbent LECs create artificial "pricing umbrellas" that their competitors can exploit.^{20/} Because only the incumbent LECs have carrier-of-last-resort obligations, competitors can target the LECs' most lucrative customers.

Moreover, the Commission has defined neither the size nor the structure of universal service support. Such open questions further increase the regulatory risk of all LECs, especially those rural LECs that have relatively few business customers, many high-cost residential customers, and ongoing carrier-of-last-resort obligations. Given the magnitude of these pending universal service issues, the current authorized rate of return is a conservative reflection of present and future regulatory risks.

Indeed, the open issues regarding universal service have placed the LECs' current revenue streams in question. Rural LECs do not know yet whether their universal service

^{18/} See *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, First Report and Order, 11 FCC Rcd 15499 (1996), *vacated in part*, *Iowa Utils. Bd. v. FCC*, 120 F.3d at 753, 796 (8th Cir. 1997), *cert. granted*, 66 U.S.L.W. 3387 (U.S. Jan. 26, 1998) (Nos. 97-286, *et al.*).

^{19/} See, e.g., *Access Charge Reform*, First Report and Order, 12 FCC Rcd 15982 (1997); Order on Reconsideration, 12 FCC Rcd 10119 (1997); *aff'd sub nom. Southwestern Bell Telephone Co. v. FCC*, 153 F.2d 523 (8th Cir. 1998); Second Order on Reconsideration, 12 FCC Rcd 16606 (1997). See also *Federal-State Joint Board on Universal Service*, 12 FCC Rcd 8776 (1997), *appeal pending sub nom. Texas Office of Public Utility Counsel v. FCC*, No. 97-60421 (5th Cir. argued Dec. 1, 1998); *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Second Recommended Decision, FCC 98J-7 (rel. Nov. 25, 1998).

^{20/} See Avera testimony at 16.

support will be reduced if the new proxy models that the Commission is developing will be applied to rural LECs. Nor do these LECs know how "portability" of support to competitors will affect either their long term or transitional high cost support. Anomalies in the service area and support measurement and aggregation policies already make windfall transitional support available to competing eligible telecommunications providers and withdraw average per line support for a rural LEC's lost lower-cost customers, while the LEC must still serve its highest cost customers.

In addition to the foregoing issues, the continuing regulatory dilemma for incumbent LECs -- and especially for the rural telephone companies that currently obtain a majority of their total revenues from interstate access and universal service support^{21/} -- is that the Commission's implementation of the 1996 Act has left many other important issues unsettled. LECs have become subject to extensive additional regulatory obligations under the 1996 Act, often without any assurance that they will be able to recover the costs they are required to incur. This is the case for new programs such as local number portability ("LNP"), consumer proprietary network information ("CPNI") protection requirements that entail electronic flagging and audit trails and limit carriers' previous uses of customer information, and the cost of new law enforcement requirements imposed under the Communications Assistance for Law Enforcement Act ("CALEA").^{22/} Major uncertainty exists about potential infrastructure development demands that the Commission may place on incumbent

^{21/} See U.S. Dept. Agric., *1997 Statistical Report -- Rural Telecommunications Borrowers*, Info. Pub. 300-4 at 15 (64% of revenues of borrowers operating telecommunications systems are from network access and long distance service).

^{22/} See, e.g., 47 U.S.C. §§ 1005, 1006.

LECs under the universal service and advanced services sections of the Act,^{23/} and whether the resulting costs can be recovered. With reconsideration and judicial review requests pending, the contours of the new regulatory requirements themselves are also uncertain. In short, the actions of the Commission and of some state regulators have increased uncertainty about the regulatory commitment to LEC cost recovery.

Statutory provisions such as the exemptions and suspensions of section 251(f) of the Act^{24/} do not mitigate overall regulatory risks for rate-of-return LECs.^{25/} Indeed, an ongoing regulatory uncertainty for affected LECs is the potential cost of compliance with interconnection and other requirements when the provisions of section 251(f) no longer apply.^{26/}

Other pending proceedings also increase regulatory risks. Among other things, the Commission is in the process of changing the jurisdictional separations rules^{27/} and revising the Uniform System of Accounts ("USOA").^{28/} Small and midsize LECs, which have drawn a large share of their revenues from interstate access, cannot predict whether

^{23/} See *id.* §§ 254, 706.

^{24/} See *id.* § 251(f).

^{25/} See Notice ¶ 41.

^{26/} Several exemptions granted under section 251(f) already have been terminated. See, e.g., *South Slope Cooperative Telephone Company*, Docket No. RET-97-1, Final Decision and Order (Iowa Dept. of Comm. Utils. Bd. Dec. 24, 1998), *Heartland Telecommunications Company of Iowa*, Docket No. RET-98-1, Final Decision and Order (Iowa Dept. of Comm. Utils. Bd. Apr. 10, 1998).

^{27/} See *Jurisdictional Separations Reform and Referral to the Federal-State Joint Board*, Notice of Proposed Rulemaking, 12 FCC Rcd 22120 (1997).

^{28/} See *Amendments to Uniform System of Accounts for Interconnection*, CC Docket No. 97-212, Notice of Proposed Rulemaking, FCC 97-355 (rel. Oct. 7, 1997).

separations changes will be made that will shift additional costs to the intrastate jurisdiction for recovery in local rates from their small customer bases. Costs are already shifting to the intrastate jurisdiction because of regulatory anomalies that have, to date, resulted in classifying almost all world-wide Internet traffic as intrastate.

Interstate access revenues are also in question, as the Commission continues to consider substantial proposed changes in the access rate structure for small and midsize rate-of-return regulated LECs that would further increase the rate disparity for consumers in rural areas. At the same time, the Commission has not resolved numerous biennial review and forbearance proceedings involving accounting, depreciation, reporting,^{29/} and many of the other Commission rules governing LECs.

Virtually all of the LECs' compensation arrangements remain in regulatory limbo even as the LECs serve as mandatory carriers of last resort. As a result, it is not surprising that many LECs face substantial risks in investing in the telecommunications infrastructure their customers need because of the high risks that they may not be able to recover their costs. With so many unknowns, it is extremely difficult to quantify this high level of regulatory risk in determining the current cost of capital.

^{29/} See, e.g., *1998 Biennial Regulatory Review -- Review of Accounting and Cost Allocation Requirements*; *United States Telephone Association Petition for Rulemaking*, CC Docket No. 98-81, ASD File No. 98-64, Notice of Proposed Rulemaking, FCC 98-108 (rel. June 17, 1998); *1998 Biennial Regulatory Review -- Review of Depreciation Requirements for Incumbent Local Exchange Carriers*, CC Docket No. 98-137, ASD 98-91, Notice of Proposed Rulemaking, FCC 98-170 (rel. Oct. 14, 1998).

3. Technological Risks

The continuing rapid pace of technological development also poses substantial risks for incumbent LECs,^{30/} particularly those rate-of-return LECs with limited ability to upgrade their infrastructures. Ongoing progress in technologies that implement Internet telephony, satellite communications, and terrestrial wireless communications is straining the technical and regulatory structures on which many LECs depend for a substantial portion of their returns. These developments, by increasing risk, further constrain incumbent LECs' ability to obtain the capital needed to keep pace with new technological developments. At the same time, incumbent LECs are in the midst of addressing Y2K compliance issues that are particularly important in light of the LECs' market and regulatory obligations to provide reliable and high-quality service.

* * *

In light of this risky environment, the Commission should turn its efforts toward implementing the Act while reducing the uncertainties that already exist for LECs, rather than create new uncertainties in a represcription proceeding.^{31/} There is, of course, ample precedent for retaining an existing authorized rate of return in recognition of regulatory, business, and other risks. The represcription scheduled for 1988 was deferred repeatedly in light of similar, though far less sweeping, regulatory changes, including changes to USOA and separations, proposed changes to the represcription rules, and market volatility.^{32/}

^{30/} See Avera testimony at 14-16.

^{31/} See *supra* note 9.

^{32/} See *Refinement of Procedures and Methodologies for Represcribing Interstate Rates of Return for AT&T Communications and Local Exchange Carriers*, 3 FCC Rcd 1697 (1988);
(continued...)

B. The Present Authorized Rate of Return Is Low For Purposes of Adequate Capital Recovery

The increasing risks faced by LECs described above are much more significant than the recent general declines in interest rates and increases in stock prices seen in financial markets.^{33/} As a result, the LECs' capital costs have increased since the 1990 represcription. Accordingly, the current authorized rate of 11.25% is low in light of the LEC industry's capital structure, its cost of equity, and its cost of debt. As Dr. Avera explains, the Commission should analyze incumbent LECs' capital structure based on market values, not book values as assumed in the Notice.^{34/} The book-value capital structure presented in the Notice^{35/} is distorted by writeoffs, other accounting adjustments, and the general effect of historical regulatory decisions. As Dr. Avera demonstrates, LECs' market-value capital structures are likely to be about 80% or more equity, and 20% or less debt.^{36/} Smaller LECs in particular must retain relatively high equity ratios to retain an ongoing ability to raise capital for system upgrades.^{37/}

As Dr. Avera shows, even assuming a decrease of 100 basis points in the cost of equity since the last represcription, 11.25% is a conservative estimate of the LECs' overall

^{32/}(...continued)

Deferral of Rate of Return Represcription Filings Pursuant to Section 62.102(c) of the Rules, 3 FCC Rcd 7220 (1988); 4 FCC Rcd 3920 (1989).

^{33/} See Avera testimony at 20-23.

^{34/} See *id.* at 27-30.

^{35/} See Notice ¶¶ 10-11.

^{36/} See Avera testimony at 29.

^{37/} See *id.* at 35-36.

cost of capital.^{38/} Indeed, because of the increased competitive and regulatory risks faced by LECs, the cost of equity may well have increased since the last represcription.^{39/} With respect to the cost of credit, the recent drop in rates for Treasury bonds and high-grade corporate debt significantly overstates rates paid by small and medium-sized corporations, including many rate-of-return LECs.^{40/} Although a major source of credit for eligible telephone companies has been the Rural Utilities Service ("RUS"), changes in RUS policy, regulatory uncertainty, and competitive and technological risks have increased the cost of debt for small and mid-sized LECs. Reduction in the authorized rate of return would create additional uncertainty as LECs seek the capital needed to meet the requirements of the 1996 Act and the Commission's implementing regulations and deploy the advanced telecommunications networks and services sought by the American public. The volatility of current capital markets means that LECs' access to capital markets is vulnerable to interruption, which could be exacerbated by Commission prescription of an inadequate authorized rate of return.^{41/}

Policy concerns about consumer welfare, U.S. infrastructure development, and the needs of smaller LECs argue strongly for retaining the current authorized rate of return or increasing it. It is essential for the Commission to consider such factors in this

^{38/} See *id.* at 38.

^{39/} See *id.* As Dr. Avera notes, there is substantial evidence that equity risk premiums move inversely to interest rates so as to partially offset the effect of interest rate variations on the cost of equity. See *id.* at 21-22.

^{40/} See *id.* at 35.

^{41/} See *id.* at 26.

proceeding.^{42/} An inadequate authorized rate of return would harm consumers by restricting the LECs' ability to fund investment in current technology while limiting competitive entry.^{43/}

If the authorized rate of return is inadequate, LECs will have insufficient capital to maintain their systems at the level demanded by their customers and regulators.^{44/} Such a constraint would be contrary to the Communications Act's emphasis on advanced services and universal service. As noted above, LECs are obligated to alter their networks to comply with regulatory rulings such as those regarding LNP, CPNI, and CALEA. Of course, such regulatory mandates do nothing to decrease the competitive, regulatory, and technological risks that LECs face. LECs undoubtedly will have to invest substantially in their systems to address anticipated marketplace developments and continuing regulatory changes. Since new sources of capital are limited for incumbent LECs, the authorized rate of return should be increased to reflect the greater risks and challenges that these LECs face.^{45/}

III. THE THRESHOLD FOR THE LOW-END FORMULA ADJUSTMENT MECHANISM SHOULD BE MAINTAINED OR INCREASED

The Commission should either maintain or increase the threshold rate of return for the low-end formula adjustment mechanism ("LFAM") for price cap LECs.^{46/} The issues

^{42/} See Notice ¶ 41.

^{43/} See Avera testimony at 26, 31.

^{44/} See *id.* at 30.

^{45/} See *id.* at 35-36.

^{46/} See Notice ¶¶ 53-55.

regarding the LFAM for price cap LECs are distinct from the cost of capital considerations that apply for rate of return regulation. The Commission should analyze LFAM issues independent of such considerations and allow the competitive marketplace to set appropriate access prices when it implements the market-based approach to access pricing adopted in CC Docket No. 96-262.^{47/} Until that is accomplished, and given the fact that the authorized rate of return should be maintained at present levels or increased, there is no need to alter the LFAM.

The Commission rightly adopted the LFAM to protect against imposition of a price cap that is so restrictive that the rate of return on a price cap LEC's regulated services falls below a threshold that it considered likely to avoid confiscation.^{48/} The Associations submit that because of the increasing risks discussed above for incumbent LECs, the present threshold of 10.25% is even less likely to be adequate than when the Commission adopted it in 1990. The relief supplied by the LFAM is conservative: when an earnings shortfall occurs in a financial year for a price cap LEC, the LFAM provides for a one-year exogenous adjustment that generates offsetting revenues only from July forward. In certain circumstances, when the LFAM adjustment is triggered by an X factor that is too high, earnings still could be trending downward over time, even with the LFAM relief, and a LEC's returns may not achieve the LFAM threshold.

Given the conservative nature of the LFAM, the Commission should not reduce LFAM support levels. An inadequate LFAM threshold diminishes investor confidence and

^{47/} See *Access Charge Reform*, 12 FCC Rd 15982, 16094-16104.

^{48/} See *Policy and Rules Concerning Rates For Dominant Carriers*, 5 FCC Rcd 6786, 6804, 6807 (1990).

impairs LECs' incentive for future investment. This concern is particularly acute at present, when LECs face increased risks.

IV. CONCLUSION

The Associations respectfully submit that the current authorized interstate rate of return is at the lower limit needed for incumbent LECs to cover their costs adequately. Indeed, analysis of incumbent LECs' capital requirements based on market valuation shows

that any represcription should increase the authorized rate of return. The Commission also should not modify the low-end formula adjustment mechanism for price cap LECs.

Respectfully submitted,

LOCAL EXCHANGE CARRIER ASSOCIATIONS

By: Keith Townsend

Marie Guillory
National Telephone Cooperative
Association
2626 Pennsylvania Avenue, N.W.
Washington, DC 20037-1695
(202) 298-2300

Margot Humphrey
National Rural Telecom Association
1150 Connecticut Avenue, N.W., #1000
Washington, DC 20036-4104
(202) 467-5700

John Rose
Stuart Polikoff
Organization for the Promotion
and Advancement of
Small Telecommunications Companies
21 Dupont Circle N.W., #700
Washington, DC 20036
(202) 659-5990

Gina Harrison
National Exchange Carrier Association
1201 Pennsylvania Avenue, N.W.
Suite 300
Washington, DC 20004
(202) 661-4691

Lawrence E. Sarjeant
Linda Kent
Keith Townsend
John Hunter

United States Telephone Association
1401 H Street, N.W.
Suite 600
Washington, DC 20005
(202) 326-7371

David Zesiger
Independent Telephone and Telecommunications
Alliance
1300 Connecticut Avenue, N.W., #600
Washington, DC 20036
(202) 775-8116

January 19, 1999

CC DOCKET NO. 98-166

**COMMENTS OF DR. WILLIAM E. AVERA, CFA
FILED ON BEHALF OF
THE UNITED STATES TELEPHONE ASSOCIATION, NATIONAL
TELEPHONE COOPERATIVE ASSOCIATION, NATIONAL RURAL
TELECOM ASSOCIATION, ORGANIZATION FOR THE PROMOTION
AND ADVANCEMENT OF SMALL TELECOMMUNICATIONS COMPANIES,
INDEPENDENT TELEPHONE AND TELECOMMUNICATIONS
ALLIANCE, AND NATIONAL EXCHANGE CARRIER ASSOCIATION**

Q. Please state your name and business address.

A. My name is William E. Avera. My address is 3907 Red River, Austin, Texas.

Q. What are your qualifications?

A. I received a B.A. degree with a major in economics from Emory University. After serving in the U.S. Navy, I entered the Ph.D. program in economics at the University of North Carolina at Chapel Hill. Upon graduation, I joined the faculty at the University of North Carolina and taught finance in the Graduate School of Business. I subsequently accepted a position at the University of Texas at Austin where I taught courses in financial management and investment analysis. I then went to work for International Paper Company in New York City as Manager of Financial Education, a position in which I had responsibility for all corporate education programs in finance, accounting, and economics.

In 1977, I joined the staff of the Public Utility Commission of Texas ("PUCT") as Director of the Economic Research Division. During my tenure at the PUCT, I managed a division responsible for financial analysis, cost allocation and rate design, economic and financial research, and data processing systems, and I testified in cases on a variety of financial and economic issues. Since leaving the PUCT in 1979, I have been engaged in my current capacities with FINCAP. I have also served as Lecturer in the Finance Department at the University of Texas at Austin and for the last seventeen years have taught graduate courses at St. Edward's University. I hold the Chartered Financial Analyst ("CFA") designation and have served as an officer of various professional organizations and societies and have lectured on economic and regulatory topics in programs

sponsored by universities and industry groups. With the approval of Governor George W. Bush, I was appointed by the PUCT in 1996 to the Synchronous Interconnection Committee to advise the legislature on the costs and benefits of connecting Texas to the national electric transmission grid. I currently serve as co-chair of that committee. In addition, I currently serve on the board of directors of Georgia System Operations Corporation, the system operations arm of Oglethorpe Power Corporation, the nation's largest generation and transmission cooperative.

In my capacities with FINCAP, I have presented testimony to the Federal Communications Commission ("FCC" or "the Commission"), the Federal Energy Regulatory Commission ("FERC"), the Interstate Commerce Commission, the Canadian Radio-Television and Telecommunications Commission, and regulatory agencies in 20 states. I have also testified before federal and state courts and legislative committees. Much of my practice extends beyond testifying. I have advised telephone companies—large and small—on financial and strategic issues, including financing, valuation, capital structure, and mergers and acquisitions. A resume containing the details of my experience and qualifications is attached as Exhibit 1.

Q. What is the purpose of your comments?

A. I have been asked by the United States Telephone Association, National Telephone Cooperative Association, National Rural Telecom Association, Organization for the Promotion and Advancement of Small Telecommunications Companies, Independent Telephone and Telecommunications Alliance, and National Exchange Carrier Association to comment about the Commission's proposal to represcribe the authorized rate of return for interstate access services provided by incumbent local exchange companies ("ILECs") not subject to price-cap regulation.

Q. Please summarize your conclusions.

A. I believe that customers and the public interest are better served by the Commission's effective implementation of the Telecommunications Act than by a revision of the prescribed rate of return. Moreover, customers and the economy may suffer unintended consequences if unresolved issues related to the Telecommunications Act make it difficult for telecommunications companies to raise the capital for urgently needed infrastructure improvements.

Based on a broad look at the realities confronting ILECs in the capital markets, I have concluded as follows:

- Investors perceive that the ILECs face increasing risks and uncertainty in their core business of providing local exchange service and interstate access service.
- As a result of greater perceived risks, ILECs must obtain an increasing portion of their capital in the form of equity funds.
- Many ILECs (particularly companies that cannot issue investment-grade securities) have been pushed to higher-cost sources of debt financing.
- These changes have offset any impact of the observed fall in interest rates on the ILECs' capital costs since the Commission last prescribed their rate of return.

To establish a reasonable cost of capital and to achieve the national objectives of universal service and technological parity, the Commission must avoid basing its decision on only a select few economic indicators, rate-of-return models, and antiquated book-value capital structures. Interest rates have varied considerably over business cycles in the past and will continue to do so in the future. The capital structures of telephone companies are in a state of change because of a need to maintain higher equity ratios to offset increasing risks in the telecommunications business. Prospective capital costs must reflect the equity costs and capital structures necessitated by these competitive market realities. With this goal in mind, it would be unreasonable to base the ILECs' prospective cost of capital on interest rates that appear to have fallen to a cyclical trough and on book-value

capital structures and rate-of-return models that reflect the companies' legacy as regulated utilities.

The ever-increasing competition, technological advances, and structural changes that now confront ILECs imply increasing risk and uncertainties. Given the significant risks and uncertainties facing ILECs, I believe that the present prescribed return is a conservative estimate of the ILECs' cost of capital and that a full-fledged review of the cost of capital would indicate that the ILECs' prescribed rate of return should be higher. Any change in the current prescribed rate of return must recognize the emerging competitive realities facing ILECs and the economic incentives and financial capability needed to maintain a high quality telecommunications infrastructure. Without an adequate return, the ILECs would be unable to attract sufficient capital to satisfy the demands of consumers for expanded telephone services. In short, customers and the public interest would not be served if the prescribed rate of return were to be reduced. If the Commission prescribes a rate of return for ILEC interstate access service in this proceeding, it most likely would be above the current level of 11.25 percent.

AS A MATTER OF REGULATORY POLICY, PRESCRIBED RETURNS SHOULD NOT BE CHANGED IN THIS PROCEEDING

Q. Why do you recommend that the Commission not change the prescribed rate of return for ILECs at this time as a matter of regulatory policy?

A. As I discuss later, a proper review of the ILECs' cost of capital would likely show that the prescribed rate of return should be increased, not decreased. Micro-managing the ILECs' rates of return, however, would consume a significant amount of Commission resources—and the resources of interested parties—without providing clear benefits to offset the potential risks.

Represcribing the ILECs' rate of return could well have unexpected effects. The prescribed rate is enormously significant because financial markets consider it to be a primary indicator of the future level of support that all ILECs will receive from the

Commission. For example, a decrease in the prescribed return would signal potential providers of capital that the Commission does not recognize the financial challenges facing local service providers. The unintended consequence of a lower rate could well be that the capital funds vital to upgrading the nation's telecommunications infrastructure either would not be forthcoming or they would be provided only at a significantly higher cost.

Q. Why would changing the prescribed rate of return to ILECs for interstate access at this time not be in the public interest?

A. New competitive services in the market and emerging regulatory changes at both the federal and state levels have dramatically increased the relative risks associated with providing interstate access services. The pace of technological change—which interacts with competition to increase risk—can only be expected to quicken. As a result, the risk-adjusted cost of capital for interstate access providers has become an ever moving target, and represcribing the rate of return for ILECs will require significantly more sophisticated forms of analysis than in the past.

As I explain below, when one looks beyond the fall in interest rates on Treasury bonds to the broader capital market trends impacting ILECs, the current 11.25-percent prescribed rate of return emerges as a conservative estimate of the reasonable cost of capital for these companies. Under these circumstances, changing the rate of return for ILECs would simply distract the Commission and interested parties from the much more important tasks at hand.

Q. Are the lessons learned from deregulating the natural gas and transportation industries relevant to this proceeding?

A. Yes. Experience in the natural gas and transportation industries shows that losing sight of the end results of regulatory decisions can quickly lead to unintended consequences. As a consultant to consumer and industry groups and regulatory agencies, I participated in regulatory proceedings dealing with the deregulation of both industries and observed that the structural changes associated with deregulation can produce consequences that no one

can predict. In particular, as prices become primarily market-driven, competitive developments and technology become inherently difficult to anticipate.

Much of the uncertainty simply reflects the superior ability of markets to continually adjust both to consumer needs and to changing technology. This point was succinctly stated in the *Economic Report of the President*:

An insufficiently appreciated property of markets is their ability to collect and distribute information on costs and benefits in a way that enables buyers and seller to make effective, responsive decisions. . . . As tastes, technology, and resource availability change, market prices will change in corresponding ways, to direct resources to the newly valued ends and away from obsolete means. It is simply impossible for governments to duplicate and utilize the massive amount of information exchanged and acted upon daily by the millions of participants in the marketplace.¹

While competition in the telephone industry will produce many benefits for both providers and customers, all participants will be exposed to the new uncertainties of the free market. The market, not regulatory proceedings, will ultimately drive the future of telecommunications. This country's experience with the airlines, trucking, railroad, and natural gas industries shows that deregulation should enable the telephone industry to develop new ways of meeting customer demands.²

As the Council of Economic Advisors observed in the *Economic Report of the President*, "The bottom line is that competition need not be perfect for it to be preferable to regulated monopoly."³ But there is much work that must be done to develop competitive telecommunications markets—as was also recognized by the Council: "The years of debate that preceded the passage of the Telecommunications Act are likely to presage additional years of regulation and litigation to realize its goals. These complex issues will

¹Council of Economic Advisors, *Economic Report of the President* 191 (1997).

²For example, the *Economic Report of the President* cited a recent study that assessed the significant long-run benefits of deregulation to consumers in these industries. *Id.* at 190.

³Council of Economic Advisors, *Economic Report of the President* 158 (1996).

require active policy oversight to ensure a proper outcome.”⁴ During the transition to competition, we must be mindful that while the “macro-view” presents competition as a boon to customers, the customers in some sectors of the economy (such as rural communities with small, inefficient markets) may fail to realize net benefits from unfettered competition.

Q. Did consumers and investors gain from the deregulation of the transportation industry?

A. Consumers clearly gained from a greater variety of service options. For example, a review of the airline deregulation experience by the Transportation Research Board of the National Research Council in 1991 concluded:

Deregulation brought changes to the airline industry that have produced substantial benefits to air travelers. More travelers are flying now than ever before: the number of annual passenger trips . . . has increased by nearly 100 percent since 1977.⁵

This is not to say, of course, that the benefits of airline competition have been evenly distributed throughout all sectors of the economy. In particular, many airlines customers in rural communities may well be worse off as a result of deregulation of that industry.

Investors in successful airlines enjoyed gains and increased growth prospects. Those formerly regulated firms that were unable to transition to the competitive environment did not survive, and their investors suffered. Many proud names, like Braniff, PanAm, and Eastern, did not survive the transition to competition. At the same time, however, other carriers like Southwest Airlines leap-frogged more established incumbents to assume leadership positions in the industry, and investors in these successful companies have enjoyed superior returns.

⁴Council of Economic Advisors, *Economic Report of the President* 205 (1997).

⁵*Winds of Change: Domestic Air Transport Since Deregulation* 129 (1991).

Q. Are there potential problems with opening regulated markets to competition?

A. Yes. Because investors are exposed to greater risk and uncertainty, the cost of capital necessarily increases. Also, regulators must change their practices to facilitate a transition to competition. The most difficult challenges arise in industries that are partially regulated and partially competitive. It is at the interface of the regulated and competitive markets that the regulatory process is the most complex and challenging. Where regulators have a less pervasive control over industry developments, they find that setting those rates that remain subject to regulation requires considerably more finesse.

Another challenge is to deregulate an industry while obtaining results that an unfettered marketplace may not provide. For example, regulators may find that while consumers in some sectors of an industry may benefit considerably from deregulation, consumers in other sectors may realize little benefit or even be worse off. There is a consensus, for example, that airline deregulation has resulted in lower fares and better choices for the great majority of consumers. But consumers in more remote, smaller cities must now pay considerably higher fares for inferior service on commuter planes.⁶ This result has been accepted only because there is apparently no other way for the great majority of consumers to realize the substantial benefits of airlines competition. For more basic goods and services, however, policy makers may decide that regulators should retain some control over rates and services to ensure that at least a minimally acceptable level of service is available to all consumers at a reasonable price. In telecommunications, the national goal of universal service challenges the Commission's goal to allow market prices to determine rates and quality of service, particularly for consumers in rural areas.

⁶See, e.g., Swoboda, Frank, "Stranded by Airline Deregulation: Some Cities Cite Economic Hardships Caused by High Fare, Limited Service," *Washington Post* F1 (Jan. 2, 1999).

Q. Why does the process of regulation require more finesse when an industry is in transition to competition?

A. Traditional regulation has been viewed as in large part a “zero-sum game”: If regulators set prices too high, utility investors gain at the expense of customers. Conversely, if regulators set prices too low, customers gain what the utility investors lose.⁷ But when the rates for some services are regulated and others are set by competitive markets, it is no longer altogether clear who gains and who loses as regulators raise or lower prices—especially in this proceeding where the directly affected prices are paid by interexchange carriers (IXCs) rather than by end-user customers. Indeed, incorrect prices can simultaneously hurt both the incumbent telephone companies and their customers.

Q. Can you give an example of how a price set too low has harmed consumers?

A. Of course. When the wellhead price of natural gas was set below market levels in the late 1960s and early '70s, capital migrated from the natural gas industry and innovation stagnated. At the same time, consumers made household and industrial use commitments predicated on the seemingly unlimited availability of cheap natural gas. The result was a shortfall of supply that sent shock waves through the economy. The subsequent heavy-handed response by federal regulators had adverse consequences for producers and consumers of natural gas through the next decade.

Q. Is there any evidence that too low a prescribed rate of return would have adverse ramifications for customers?

A. If the Commission sets the ILECs' rate of return too low, the investors in rate-of-return companies will suffer the effects of reduced cash flow, reduced returns, and diminished prospects. While customers may not be immediately concerned about the reduced cash flow and investors' plight, they eventually suffer because the prescribed returns will fail to maintain financial strength and attract capital necessary for developing and installing more

⁷The gain of the customers may prove to be only a short-run windfall as utilities find it more difficult to raise capital. Overly harsh regulatory treatment can make it impossible for utilities to maintain their financial integrity and attract capital on reasonable terms.

advanced technologies. Even price cap companies, whose access charges are not directly affected by the prescribed rate of return, may also suffer as a result of the chilling effect on capital availability from a Commission decision perceived to be adverse to investors.

PaineWebber recently stressed the significant implications of regulatory decisions for investors in telecommunications companies, particularly ILECs: "Regulation of telecommunications is and should continue to be one of the most significant drivers of returns in the [telecommunications] sector, and we believe that the deck is stacked against the RBOCs [Regional Bell Operating Companies]."⁸ This report, like others from leading investor advisory services, highlights the significance of the Commission's decisions on issues such as the prescribed rate of return as an indicia of future regulatory support.

Q. What are the implications for competition in telecommunications if the prescribed rate of return for interstate access service providers were to be set too low?

A. Low returns discourage entry. No rational service provider is going to commit capital to a market if profit opportunities are ratcheted down by regulatory fiat below the market-required rate of return. Moreover, as I point out below, competitive access providers tap the same capital markets as do similarly sized ILECs. An announcement by the Commission lowering access returns will make it even more difficult for ILECs and their potential competitors to raise capital. Meanwhile, of course, the IXC's would benefit from lower access charges—with no capital investment.

Q. Why don't the IXC's invest in replicating the ILECs' access systems?

A. Capital is a scarce economic resource, even to the largest corporations like MCI WorldCom and AT&T Corp. In budgeting their capital expenditures, these corporations must compare the risks and returns of various options. When capital expenditures can be avoided by using the ILECs' facilities on favorable terms, capital will be directed to other

⁸Struminger, E. (PaineWebber, Inc.), "Telecommunications Services: Regulatory Issues on the Front Burner" (Sept. 21, 1998).

priorities. In effect, the IXC's can require the ILEC's to raise capital to build local access facilities for the IXC's use.

The facilities-based long-distance companies are indeed investing in alternative access systems, but these companies are concentrating on "special access" arrangements that trunk traffic directly from high-volume users to an IXC's point of presence in metropolitan areas. The IXC's are not pursuing low-volume (e.g., residential) customers who require only switched access service. Rather, the IXC's are focusing their efforts on capturing the global access and data service business of larger commercial customers.

The special access service by itself provides price discipline on the switched access services offered by ILECs. At the same time, the IXC's employ the regulatory process to push down switched access prices without regard to the impact of lower rates on the ILECs' financial condition and thus their ability as the carrier of last resort to maintain and upgrade the infrastructure. In sum, the IXC's' main strategies are to target areas with a high density of business customers, "cream-skim" high-use customers onto IXC facilities, and rely on the regulatory process to reduce switched access prices.

With the continuing need to defend their long-distance markets, IXC's will have to focus its capital investment where the payoff is greatest. Low returns from interstate access services will thus further reduce the profit incentive to replicate the ILEC's' access networks and technologies, leading IXC's and other competitors to deploy their scarce capital for other projects.

If interstate access returns were uneconomically high, there is little doubt that IXC's would seize the opportunity to boost its return on capital by investing in alternative access facilities. Instead, we see the example of MCI WorldCom directing capital into its overseas operations to put itself in a leading position in Europe.⁹ At the same time,

⁹*Value Line Investment Survey* at 752 (Oct. 9, 1998).

AT&T is directing enormous capital investment through its global partnership with British Telecom.¹⁰

Q. Are you asserting that the IXC's are doing anything wrong by targeting their investments?

A. IXC's are reacting rationally to deploy their capital where the risk-adjusted financial and regulatory prospects are the most attractive. The Commission must recognize this economic reality. A failure to prescribe an adequate return would confirm these firms' perceptions that investment in interstate switched access should be avoided. IXC's are responding to the regulatory stimuli in their environment. However, the national policy of telecommunications competition—with its huge payoff for consumers and the economy—is being frustrated by their rational economic response.

Regardless of how rational the IXC's actions are, the delay of their entry into the local telephone services markets was clearly not intended by Congress when it enacted the Telecommunications Act, as Standard & Poor's (S&P) has pointed out:

It has been more than two years since the Telecommunications Reform Act of 1996 was passed. Not one RBOC is in interLATA long-distance, nor are any of the large IXC's offering local exchange service to residential customers. This was not the intent of Congress when it passed the Telecom Act.¹¹

To accomplish the goals of the Telecommunications Act, the Commission must not only resolve pending policy issues, it must also avoid undermining the economic incentives to invest in the country's telecommunications infrastructure to the benefit of all customers—residential and business, urban and rural.

¹⁰*Value Line Investment Survey* at 737 (Oct. 9, 1998).

¹¹Standard & Poor's, "Technology and Deregulation Shaping the Future of Telecommunications," *CreditWeek* 9, 12 (Aug. 26, 1998).

COMPETITION IS INCREASING THE COST OF CAPITAL

Q. How does competition impact the ILECs' cost of capital?

A. Competition has significantly increased the cost of capital for interstate access services. The transition to competition has greatly amplified the perceptions of risk already created by the profound technological and regulatory changes in the telecommunications industry. Investors have many choices when deploying their capital. When the risk and uncertainty of a business increase as dramatically as they have for interstate access services, then those services must offer returns commensurate with the greater risk. Otherwise, investors will move their capital elsewhere.

Q. How have these fundamental structural changes affected regulated telephone companies?

A. ILECs began to lose their natural monopolies as technological advances allowed competitors to penetrate the market for local access service, and rivals emerged in every profitable segment of the industry to challenge the ILECs' position. More than seven years ago, Standard & Poor's described how these structural changes were impacting the risks faced by regulated telephone companies:

Before American Telephone & Telegraph Co.'s divestiture of local telephone companies, regulation was the industry's major business risk. Local exchange telephone companies were uncertain about whether state and federal regulators, with their mandate to ensure fair and reasonable rates, would grant them sufficient revenues to recover their costs. Today, the inexorable advance of competition most threatens future support for credit quality. The industry's relentlessly growing exposure to competition will occur with or without recognition or admission by managers and regulators. Greater competition is driven by technology, which has never had any regard for regulation, only the economics of the situation. The regulated local telephone companies, with prices averaged to fulfill social goals, are a prime target for this kind of competition.¹²

¹²*CreditReview*, p. 5 (June 24, 1991).

S&P's description could have been written this day and will be accurate tomorrow. Competitive and technological changes are accelerating. Meanwhile, many fundamental regulatory issues facing local telephone service have yet to be resolved.

The Telecommunications Act has substantially changed all aspects of federal regulation of the telephone, television, radio, and cable television industries, and has accelerated the trend toward more open markets and greater competition. As noted by *Value Line*:

With the aid of federal legislation to deregulate the telecommunications industry, competition will intensify in all facets of the telecom arena over the next several years. . . . In early February, the Federal government passed a sweeping telecommunications reform bill that clouds the distinction between local and long distance telephone providers. The new law opens the local telephony market to competition, allows the Baby Bells to offer long distance service, and deregulates the cable industry.¹³

Other observers note that the underlying changes in telecommunications technology over the past 20 years or so have been the primary driver of the revolution in the industry. In an annual survey of the telecommunications industry, for instance, the *Economist* observed:

[I]t is not yet obvious where all this will lead. For about a century after its birth, the telephone network became more and more extensive, but not much more sophisticated. Only in the past two decades have three great innovations—the fax, the mobile telephone and the Internet—shown how the network can be used to create new mass-market products that change the way people live and work. Many more such novelties probably lie ahead, for telecommunications is at the centre of the most intense innovation that any industry has ever seen.

The innovations themselves are only a first step. Beyond that lies the evolution of ways to use them, a much more gradual and unpredictable process. Think of the myriad ways electrical power has shaped the 20th

¹³p. 741 (July 12, 1996).

century. The impact of the communications revolution on life in the next century will be just as pervasive.¹⁴

Investors see alternative carriers and startup companies uniting computers, e-mail, fax, and video to compete for business once reserved for local telephone companies:

[O]utside the boardrooms of telecom's giants, innovation is sweeping the wired and wireless world—bubbling up from the bottom. Hundreds of alternative carriers are leaping head-first into the newly deregulated environment.

....

Building on the union of data networks and computer, the Internet has become the new global communications infrastructure for businesses. With its standard interfaces and low rates, "the Internet has been the great leveler for communications—the way the PC was for computing," says analyst Virginia Brooks of Aberdeen Group Inc., a Boston consulting firm.

....

The Internet is also giving rise to new products that could undermine traditional phone services. The one that sends shivers down the spines of telecom execs: software that lets you place phone calls over the Net.¹⁵

More recently, *Value Line* observed,

The Telecom Industry continues to undergo a metamorphosis into a more competitive environment. These changes are being fueled by deregulation as well as new, more efficient technology that is embodied by the Internet. *Yesterday's key players are far from guaranteed to be the winners of tomorrow.*¹⁶

The dramatic changes in the risks of local telephone service prompted S&P to review its criteria governing the rating relationship of parent and subsidiary telephone companies. Meanwhile, Moody's Investors Service (Moody's) concluded that for the local

¹⁴"Telecommunications Survey," *Economist* 3-4 (Sept. 13, 1997).

¹⁵Reinhardt, Andy, Elstrom, Peter, & Judge, Paul, "Zooming down the I-Way," *Business Week* 77 (April 7, 1997).

¹⁶p. 738 (April 10, 1998) (emphasis added).

telephone companies, the risks associated with the opening of the local loops to competition may well outweigh the benefits from entering new lines of business:

As the Bell holding companies begin to take advantage of the liberties that the law provides, we believe that the risks associated with this legislation may have a greater impact on ratings than the opportunity to compete in new lines of business, or to share in new sources of revenue. The principal threat that may develop will be to the financial performance of their largest subsidiaries, the telephone operating companies, with the opening of the local loop to alternative carriers.¹⁷

In the two years since Moody's made this observation, fundamental regulatory issues such as universal service, pricing flexibility, rate rebalancing, and access-charge restructuring remain in a state of flux.

Q. Why does the specter of increasing competition along with continued regulation substantially increase the risks to ILECs?

A. The average rates charged by ILECs inhibit their ability to respond to competition and create artificial "pricing umbrellas" that competitors can exploit. Because the competitors of ILECs do not share the responsibilities of carriers of last resort, they can easily "cherry pick" geographic areas with high densities of high-volume commercial customers. Their entry is further facilitated by the ILECs' obligation to provide unbundled network elements and thus significantly lower the capital costs for competitive access providers (CAPs) and competitive local exchange companies (CLECs). For their part, regulators have generally been slow to recognize changes in technology and the market.

Q. How have past regulatory policies heightened the risks posed by the ILECs' transition to competition?

A. As a result of past regulatory policies, those customers who are less costly to serve due to location or other characteristics subsidize the service provided to higher-cost subscribers. With the introduction of competition, the ILECs face particularly intense rivalry for access to high-volume customers, and because of previous pricing practices, the loss of these

¹⁷Moody's, *Special Comment* 5 (Dec. 1996).

principally business users will lead to revenue shortfalls and undermine the adequacy of the rates charged other customers.

But as prices to the most profitable customers are cut—or these subscribers are lured away by competitors—the costs of providing services to remaining customers are not significantly reduced, and few facilities can be redeployed. As a result, the ILECs are subject to dramatic swings in operating income from relatively small changes in the number of large customers. Investors, of course, equate the increased vulnerability to income swings with increased risk.

Regulation creates another problem for the ILECs if they have a continuing obligation to serve all customers—even when it means facilitating the entry of competitors for their core business. Thus, ILECs are put into the position of having to invest in access facilities requested by potential competitors with no assurance that they will have an opportunity to recover a return on or a return of the original capital investment. This is analogous to a bank offering car loans and granting the borrowers free options to walk away from the loans if they find other cars they would rather have.

Q. How have the changes in regulation and technology combined with the transition to competition to increase investors' risk perceptions of ILECs?

A. The ILECs have initiated new rate programs to offer competitive services at competitive rates and to implement wholesale sales and services programs. They have also spent heavily to implement wholesale sales and services programs. And to meet the challenges posed by alternative technologies, ILECs are investing heavily in a new network architecture of their own. As a result, at the same time ILECs must reckon with changes in rates and social obligations that impact their profitability, they are faced with the need to support significant investment in the telecommunications infrastructure.

There is currently a plethora of regulatory proceedings pending at this Commission and state regulatory agencies across the country as regulators deal with such crucial issues as separations reform, universal service, and the structure of access charges. The outcome

of these proceedings could have a profound impact on the ILECs' risks and prospects. While investors appreciate intentions not to impair the financial integrity of ILECs, they are also mindful of the vulnerability of the companies to unintended consequences. Regardless of the eventual outcome, the current regulatory uncertainty inevitably causes investors to perceive greater risks for telecommunications companies.

Moreover, dependence on high-volume, high-density local service customers and the access charges derived from serving them (either directly through special access or indirectly through switched access services) makes ILECs' revenues vulnerable to competitive inroads. The loss of these large customers may strand capital investment and place pressure on the rates charged to remaining (primarily residential) customers. And while the high operating leverage inherent in providing local telephone service did not pose unmanageable problems for ILECs under the traditional regulatory paradigm, the transition to competitive markets will increase revenue volatility. At the same time, heavier capital spending is required to modernize the public network, meet competitive challenges, and avoid profound bypass. Finally, even though competition has been allowed into their industry, the ILECs have not been relieved of their continuing obligations as carriers of last resort to provide quality service to all customers in their service areas.

Investors are concerned that in the midst of the regulatory changes to accomplish the transition to competition, a technological breakthrough may render local access providers irrelevant. An example of such a disaster scenario—which would profoundly reduce the ILECs' access charge revenues—was recently described by AT&T's chairman, Michael Armstrong, before the Detroit Economics Club:

[Y]ou can't resell your competitors service, over their plant and equipment, at high prices, with weeks to handle an order. That's one reason we decided to buy TCI—to give us a way around the local phone company bottleneck.

TCI will give us a path into almost one-third of all American homes. But more than that it will give us the ability to exploit the convergence of TV,

PC, and telephone to create a whole new generation of communications, information and entertainment services.¹⁸

Whether technology will soon enable AT&T to use its TCI links to residential customers to bypass ILECs is uncertain. But such bold statements in a prestigious forum garners investors' attention. They know that AT&T would immediately make an end run around the ILECs if it ever becomes practical to do so. The result would be a dramatic drop in ILEC revenues—while costs and investments would remain largely unchanged. The capability of AT&T to make broad moves is illustrated by its corporate web site for Digital Link.¹⁹ This service combines local, long-distance, and international service on the AT&T network of T1.5 or greater to bypass ILECs. The entire map of the United States purporting to show where Digital Link is available is shaded.

Q. How does AT&T's search for a technological breakthrough that would render the ILECs' facilities uneconomic relate to your earlier observation that an inadequate prescribed rate of return would discourage competitive entry?

A. AT&T's objective is not just to replicate the interstate access services offered by ILECs, but also to capture new markets from many services made possible by new technology. In a recent announcement, AT&T clearly stated its strategy of combining services:

AT&T said it will spend \$2 billion more than originally anticipated to accelerate plans to upgrade TCI's cable lines so they can provide local, Internet and advanced video service by the end of this year in 10 markets.

. . . .

AT&T executives also told analysts at a meeting in New York that the company is moving to offer customers all of its services—from long-distance and local calling to cable movies—in one-price bundles for a set amount each month.²⁰

¹⁸Armstrong, C. Michael, "Plain Talk on the Future of Communications" (Sept. 29, 1998) (available at <http://www.att.com/speeches/98/980929.maa.html>).

¹⁹See, AT&T's web site at http://www.att.com/att_digital_link and subpages for a description of the service. (Information obtained Dec. 22, 1998.)

²⁰Blumenstein, Rebecca, "AT&T Widens Local-Service Plans," *Wall Street Journal* A3 (Jan. 11, 1999).

If these new services prove practical, then ILECs face a massive potential loss of revenue with very little savings of cost. This profound bypass exposure extends across the entire country, including rural communities. In my experience, most rural ILECs serve communities with cable service. Indeed, their most profitable customers are likely to be clustered in areas with cable service.

In light of the cable technology's broad range of services and its strategic benefits to AT&T, the rate of return on interstate access is not likely to be a controlling factor in the decision to invest in the technology. Meanwhile, customers depend on ILECs and CLECs to continue providing access. If the rate of return is not attractive, however, investment in conventional access systems will not be forthcoming. In that circumstance, customers would be harmed because they bear the risk that a new technology will not be available to them. For instance, even if the AT&T cable initiative is successful, it is likely to be available only to customers in communities where existing cable systems make it economical for the package of services to be offered. Interstate access is too important to all customer to risk leaving some customers behind. Hence, the best assurance of universal quality access is to maintain a rate of return adequate to attract capital.

A BROAD LOOK AT CAPITAL MARKET CONDITIONS SUGGESTS THAT THE ILECS' COST OF CAPITAL HAS INCREASED, NOT DECREASED

- Q. Besides investors' sensitivity to competition and regulation, have there been other changes in capital market conditions that have affected the ILECs' cost of capital since the last proceeding to prescribe a rate-of-return?**
- A.** Yes. Since 1990, interest rates have declined and stock prices, including those of firms in the telecommunications industry, have increased. The drop in interest rates in large part reflects expectations for moderating economic growth and a continuation of current low inflation rates. And while telecommunications firms continue to face heightened risks due to increasing competition, the increase in stock prices is generally attributed to expectations of higher long-term earnings growth and lower interest rates. At the same time,

however, many ILECs—along with other small and medium-sized corporations— have found themselves closed off from traditional sources of capital. Moreover, the recent dramatic increase in market volatility has the potential to disrupt the ILECs' access to capital markets when they must raise funds.

Q. Does the fact that stock prices have increased necessarily imply that investors' required rate of return on equity for telecommunications companies has decreased?

A. No. Changes in the prospects for future growth may also cause investors to reevaluate the price they are willing to pay for common stocks. For example, while higher growth expectations have pushed the stock prices of high-tech firms to new highs, no one would seriously contend that investment risks associated with the industry have declined. Similarly, the notion that higher prices for the shares of telecommunications firms reflects a decrease in the cost of equity is pure speculation. A more reasonable inference is that the rising prices reflect telecommunications firms' growth rates moving to levels more akin to those that investors expect from firms in competitive industries.

Q. How have these changes affected investors' required rate of return on equity?

A. The overall impact of such changes in capital market conditions on investors' required rate of return on equity is not readily determined. While the cost of equity—absent a change in relative risk—generally moves in the same direction as interest rates, it is widely accepted that the cost of equity does not change in lockstep with changes in bond yields. Indeed, there is substantial evidence not only that the magnitude of equity risk premiums is not constant, but also that the premiums tend to move inversely with interest rates so as to partially offset the effect of interest rate variations on the cost of equity. In other words, as interest rates rise, equity risk premiums narrow; conversely, as interest rates fall, equity risk premiums increase. The evidence reveals that during a period of declining interest rates, the cost of equity declines by less than half the corresponding decline in bond yields.²¹

²¹See, e.g., Harris, Robert S. & Marston, Felicia C., "Estimating Shareholder Risk Premia Using Analysts' Growth Forecasts," *Financial Management* 63 (Summer 1992); Harris, Robert S., "Using

Offsetting any impact attributable to changes in interest rates is the ever increasing uncertainties associated with the telecommunications industry. The importance of this changing risk profile is all the more apparent after considering the fact that the 11.25 percent rate of return was estimated in 1990, before the passage of the Telecommunications Act accelerated the trend towards competition in all segments of the telecommunications industry, including interstate access.

Q. How does the transition to competitive telecommunications markets with continuing regulation affect the estimation of the cost of equity to ILECs?

A. Because of its unobservable nature, the cost of equity must be estimated. The competitive transition which has culminated in the Telecommunications Act has only added fuel to the fire by further compounding the already difficult task of estimating investors' required rate of return. Indeed, the relative stability engendered by the traditional regulatory paradigm has been overlaid by a rapidly changing marketplace governed largely by the forces of competition. As a result, historical relationships provide little guidance to long-term expectations for the telecommunications industry. As the Commission noted in the CC Docket No.92-133:

Equity prices are established in highly volatile and uncertain capital markets. . . . Different forecasting methodologies compete with each other for eminence, only to be superseded by other methodologies as conditions change. . . . In these circumstances, we should not restrict ourselves to one methodology, or even a series of methodologies, that would be applied mechanically. Instead, we conclude that we should adopt a more accommodating and flexible position.²²

Estimating the cost of equity has always been difficult. The current volatility in capital markets and the transitional state of ILECs' risks and business prospects have

Analysts' Growth Forecasts to Estimate Shareholder Required Rates of Return," *Financial Management* 58 (Spring 1986); Marston, Felicia & Harris, Robert S., "Risk and Return: A Revisit Using Expected Returns," 28 *Financial Review* 117 (1993).

²²In the Matter of Parts 65 and 69 of the Commission's Rules to Reform the Interstate Rate of Return Represcription and Enforcement Processes at 42-43 (April 6, 1995).

brought these difficulties to a new level of complexity and controversy. In truth, cost of capital is only an estimate of a moving target, particularly for this dynamic industry at a time of capital market volatility.

Q. Are there likely to be further fluctuations in the capital costs for ILECs?

A. Yes. The Notice and NPRM in this proceeding stated that "rate prescriptions are always prospective."²³ The extreme volatility recently experienced in the capital markets is likely to continue impacting investors' required rates of return for ILECs going forward. Within a period of less than four months, stock market averages, as exemplified by the Dow Jones Industrial Average, declined on the order of 19 percent from all-time highs before subsequently recovering to a new record level. This pattern was mirrored in the bond markets, where yields on benchmark 30-year Treasury bonds have fluctuated dramatically in response to uncertainties over the direction of the economy and international instability.

Indeed, recent weeks have witnessed both the largest one-week increase and the largest one-week decrease in Treasury bond prices in history. The return from holding Treasury bonds, as reflected in the Ryan Labs Total Return Index was 2.17 percent for the week ending October 2, 1998. That one-week return equates to an annual percentage rate of over 300 percent. Yet, five weeks later the one-week return from holding Treasury securities was a 2.29 percent loss, or an annual percentage rate of roughly -70 percent.

The sharp increase in prices of long-term treasury bonds was largely attributable to a "flight to quality" motivated by eroding confidence and increasing evidence of global economic instability. Reacting to greater uncertainties in the capital markets, investors bid up the prices of highly liquid, relatively risk-free investments, such as Treasury bonds, with yields falling accordingly. Meanwhile, the spreads between the yields on Treasury bonds and debt issued by corporate borrowers widened significantly in response to investors'

²³Notice Initiating a Prescription Proceeding and Notice of Proposed Rulemaking ¶ 5, CC Docket No. 98-166 (Oct. 5, 1998).

increasing aversion to risk. This dramatic shift in the relationship between required returns for securities in the debt markets was in part responsible for triggering the well-publicized collapse of the premier hedge fund, Long-Term Capital Management near the end of October. The liquidity concerns raised by this debacle led to the sell-off of Treasury securities and the drop for the week ending November 2, 1998.

Q. What is the significance of this widening spread between the yields on long-term Treasury bonds and investors' required returns from corporate debt instruments?

A. First, the increasing spread between borrowing rates on Treasury and corporate debt securities underscores the conclusion that, viewed in isolation, reductions in the overall level of Treasury bond yields provide little insight as to changes in investors' required rates of return for the ILECs. Second, relatively higher costs for corporate borrowers is symptomatic of investors' decreasing tolerance for risk in the face of capital market turmoil. As the *Wall Street Journal* reported:

Global unrest has sparked fear that a U.S. recession will result, crippling many second-tier companies. As a result, only the best quality corporations are now able to sell new bonds, a change that will likely force more companies to seek bankruptcy-law protection in the year ahead.²⁴

This reluctance to bear what investors perceive as greater investment risk has increased the cost of debt financing and stanching the flow of funds to all but the most stalwart borrowers.

Q. What are the implications of these developments for the ILECs?

A. In light of the higher uncertainties implied by the transition to competition in the markets for local telephone service, investors' increasing sensitivity to investment risk is likely to place upward pressure on capital costs. Meanwhile, at a time when the ILECs must remain prepared to fund the investments necessary to provide state-of-the-art telecommu-

²⁴*Wall Street Journal* at A19 (Oct. 7, 1998).

nications services, concerns over the availability of credit may limit their financial flexibility and access to capital.

These problems are compounded for mid-sized, closely held telephone companies as banks tighten lending standards at the same time other avenues of borrowing are foreclosed. The *New York Times* noted the problems that mid-sized firms in the telecommunications industry are facing in the capital markets:

. . . Telegroup is the first major telecommunications casualty of the credit evaporation for companies that are smaller than huge. As markets around the world have developed into turmoil, lenders have essentially halted financing for companies whose prospects are considered uncertain.

The squeeze could become particularly acute in the communications industry, with its high capital requirements and fierce competition.²⁵

And while the Federal Reserve's moves to ease short-term interest rates has helped to calm investors' immediate fears, this action has apparently done little to increase the financial flexibility of middle-tier telecommunications firms. The *Wall Street Journal* observed,

In the last week or so a group of fast-growing companies, many of them in the telecommunications industry, have once again raised money in the junk, or "high yield," market. But bond market analysts warn that while the market is beginning to reopen to seasoned companies, they're having to pay up. . . .

. . . . [M]arket participants believe many fast-growing companies can no longer count on the same easy funding that has propelled their growth. The initial-public-stock-offering market remains shut for start-up companies, while borrowers report increased caution on the part of bank lenders. Some companies may no longer be able to issue high-yield bonds, while others will only be able to do so by paying higher yields.²⁶

²⁵At C2 (Oct. 23, 1998).

²⁶Shere, Paul M., "Telecommunications Issues Thaw Junk-Bond Freeze," *Wall Street Journal* (Nov. 2, 1998).

Since the newer telecommunications firms and the ILECs are competing for funds in the same capital markets, anything that makes the ILECs less attractive relative to, say, the CLECs causes the ILECs to lose out. Moreover, even within the ILECs as a group, local exchange services must compete for funds with the other services that the ILECs provide to their customers. The prescription of an inadequate rate of return for interexchange access service would send the wrong market signal to the investment community.

Q. What are the implications of these capital market developments for customers?

A. ILECs are being buffeted by capital market uncertainties that compound the competitive risks discussed earlier. The combined effect is to render their access to capital vulnerable to interruption at the very time that investment is necessary to accomplish infrastructure improvements. An announcement by the Commission of an inadequate prescribed rate of return would ultimately hit customers with a “double whammy.” Their ILECs would be less able to fund investment to keep abreast of technology, while potential competitive access providers would find it more difficult to finance their entry into local markets.

Q. Finally, what are the implications of the capital market developments for the Commission?

A. The difficult job of cost-of-capital determination has been made more perplexing. The many issues identified in the Notice and NPRM are only the tip of the iceberg of the methodological maze that must be navigated to reach a reasonable estimate of the cost of capital that will stand the test of time and litigation. And to what end? Represcription, if properly done, would confirm that the prescribed rate of return should be increased, not lowered. And the effort would only divert attention from the main task at hand: Completing the transition to competition in a manner consistent with the Telecommunications Act—while maintaining and advancing universal service and insuring comparable service at affordable rates for rural customers.

THE EQUITY PORTION OF ILECS' CAPITAL STRUCTURE IS INCREASING

Q. What capital structure is relevant in a prospective cost-of-capital determination?

A. To be relevant for estimating the prospective cost of capital, the long-run capital structure target should be the one that investors—who put up the money—expect and require. After all, companies can raise debt and equity funds only in the ratio that investors will provide those funds.

Q. Do current book-value capital structures reflect the prospective targets expected by investors?

A. No. Telephone companies' current book-value debt-equity ratios reflect past decisions made when most of their assets were invested in regulated activities. That book-value capital structure has changed slowly because of the lingering effects of those past decisions, and as a result, current book-value capital structures are inherently backward looking. A forward-looking, prospective capital structure would contain much more equity to take into account the thicker equity cushions necessary for the ILECs to maintain bond ratings and financial flexibility in the face of increasing competition. As S&P noted,

Increased competition will weaken the strength that the local telephone companies derive from their dominant market positions. However, industry fundamentals have allowed these companies to improve their financial capacity to service debt as competition has risen. Standard & Poor's anticipates that well managed local exchange companies will be able to continue to offset rising business risk with greater financial strength for the foreseeable future²⁷

Another reason to give little weight to current book-value capital structures of telephone holding companies is the restructuring that the companies have embarked on in recent years to prepare for competition. The flurry of downsizing, write-downs, spin-offs, acquisitions, refinancings, and other actions have caused current book-value capital

²⁷*Credit Week* (Feb. 12, 1996).

structures of the large telephone holding companies to deviate further from market-value capital structures.²⁸

The long-run effect of the restructuring, however, is not immediately apparent. Changing a large corporation's capital structure is much like turning an aircraft carrier. Once the rudder is put over, the ship will travel miles before heading in the new intended direction. For several reasons, the capital structure of a major corporation can change only slowly. Large issues of stock are costly to current stockholders, both because of flotation costs and because new equity issues dilute the ownership share of the existing stockholders. And the alternative—adding equity through retained earnings—is constrained by the availability of net income of the corporation and the necessity to avoid an erratic dividend policy. Similarly, most debt issues have limitations on prepayment. When early redemption is feasible, the associated costs can be a significant deterrent.

Q. Is there any evidence that investors expect telecommunications firms to increase their equity ratios?

A. Definitely. Book-value capital structures projected by *Value Line* uniformly reflect a long-term trend toward a higher proportion of equity in telecommunications companies' capital structures. This is consistent with the increased risk of the industry, which will require equity ratios more in line with firms in the competitive sector. As documented in the quotations from bond rating agencies presented above, higher equity ratios are required to maintain current bond ratings.

²⁸For example, as a result of the adoption of price-based regulation for most of its telephone company revenues, SBC Corp. recorded an extraordinary charge to net income of \$2.8 billion in 1995. Similarly, in early 1996, *Value Line* reported that GTE Corp. was taking a \$4.6 billion after-tax charge against its 1995 earnings. *Value Line Investment Survey* 754 (April 12, 1996). A write-off of that size obviously affected the company's common equity ratio, which dropped from its 1994 level of 43.0% to 31.5% for 1995. Nonetheless, *Value Line* continued to expect the company to build up its equity ratio to a significantly higher level.

Q. Does a review of actual and projected data confirm your observations with respect to the capital structure ratios maintained by the ILECs?

A. Yes. Exhibit WEA-1 presents book- and market-value capital structure ratios, calculated at year-end 1997 and based on *Value Line*'s 2001-03 projections for a group of firms in the Telecommunications Service Industry. As illustrated in this table, the average equity ratio for this group of ILECs, based on 1997 book values, was about 51 percent. Meanwhile, however, the average capital structure based on market values at year-end 1997—which are not directly influenced by accounting write-offs or other vestiges of traditional regulation—reflects a much higher common equity ratio of roughly 80 percent. Consistent with increasing business risk resulting from the transition to competition, *Value Line* anticipates that this group of ILECs will increase the proportion of common equity in their capital structure significantly over the next three to five years, to about 61 percent and 83 percent of total capital based on book and market values, respectively. As shown in Exhibit WEA-2, these observations are mirrored for the RHCs.

Q. Why do book-value capital structures not reflect this shift toward more equity?

A. In an industry undergoing a transition from regulated monopoly to competition, firms must decrease financial risk to accommodate increased business risk. At the same time, the bond rating agencies have uniformly cautioned that more equity will be required to support bond ratings.

The book-value equity of RBOCs has dropped *because* of accounting-required write-offs to reflect the transition from the protection of regulation to the full exposure to the rigors of competition. Market-value capital structures, by contrast, look beyond the accounting adjustments to reflect investors' collective assessment of the financing mix. The rising market values relative to book value and declining dividend payouts of telecommunications firms reflect migration toward financial parameters in the competitive sector. ILECs—large and small, traded and nonpublic—are all caught up in the mandate that they increase equity in their capital structures.

The relevance of market values rather than book values to investors in the competitive sector is illustrated by Microsoft. Investors who buy Microsoft stock pay the market price—currently in the neighborhood of \$140 per share. Similarly, investors holding a share of Microsoft stock have \$140 invested in the company because they have chosen not to sell it for that price. They therefore properly measure their equity investment in the firm using this market value, not the current \$6.50 book value. Certainly, if Bill Gates's wealth were based on the book value, his 20.8 percent stake in the company would add a mere \$3.4 billion to his net worth instead of the \$72.6 billion that makes him the richest person in the world.

INFRASTRUCTURE DEVELOPMENT IS INCREASINGLY IMPORTANT

- Q. Is there any reason for the Commission to make less of an allowance for infrastructure development now than in 1990?**
- A.** No. Telecommunications infrastructure development is becoming even more important to consumers and the economy. Communities are recognizing the role of highly developed telecommunications infrastructures in attracting new businesses and residents and are pressuring ILECs and state regulators to ensure that they have technology comparable to other systems. In this regard, the Commission is reviewing its regulations to ensure that they do not impede the deployment of advanced telecommunications facilities throughout the country, particularly in rural areas.²⁹ The resulting need to stay abreast of telecommunications technology is requiring massive investments by ILECs. Finally, unless many ILECs can improve their current financial conditions, they will be unable to obtain the capital necessary to maintain their systems at the levels demanded by their customers and regulators.

²⁹*Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, FCC 98-188 (rel. Aug. 7, 1998); *Inquiry Concerning the Deployment of Advanced Telecommunications Capability*, CC Docket No. 98-146, Notice of Inquiry, FCC 98-187 (rel. Aug. 7, 1998).

Q. What is the economic role of the cost of capital in ensuring that the facilities critical to state-of-the-art customer service can be maintained?

A. The cost of capital for any ILEC, whether it is a rate-of-return or price-cap ILEC, is the rate of return that investors require LECs to earn as a condition for supplying the companies with the capital needed to finance the state-of-art telecommunications facilities sought by consumers. If ILECs are not allowed an opportunity to earn their cost of capital, they will simply be unable to attract the capital necessary to fund these facilities—at a time when the pace of technological development in telecommunications appears to have accelerated.

Q. What are the implications if the ILECs earn insufficient returns from interstate access services?

A. The returns from interstate access services determine whether ILECs can attract sufficient capital to maintain and build the physical plant necessary to provide the services. If the returns are too low, capital will not be forthcoming to fund the required level of services. Such a shortfall would be particularly harmful to customers and the economy. To the extent that these services are the critical backbone of the nation's telecommunication infrastructure, their quality is crucial to the connectivity of all citizens.

THE MARKET-REQUIRED RETURNS NECESSARY FOR ACCESS TO CAPITAL BY ALL ILECS HAS INCREASED

Q. Why is it essential that the market-required cost of capital be recognized by the Commission in represeting the rate of return?

A. To meet the challenges posed by deregulation and their obligations to provide state-of-the-art telecommunications services for their customers, all interstate access providers companies must be able to maintain their financial resilience and access to capital. Their capital requirements continue through unfavorable industry and capital market conditions. If an interstate access provider is unable to raise capital, its customers and the communities it serves suffer.

Q. Has the credit squeeze that began in the early 1990s affected all rate-of-return carriers equally?

A. Of course, the terms under which any telephone company obtains capital funds are colored by investor perceptions of risk, and the markets for their securities can be roiled by unfavorable signals like a reduction in the prescribed rate of return. The smaller telephone companies, however, generally have more limited resources, and their access to capital is more constrained. There is generally no ready market for their common stock, and for their debt capital, the smaller companies have historically relied on the Rural Utilities Service ("RUS").³⁰

Rural telephone systems have an ongoing need for long-term, fixed-rate capital at affordable interest rates. Since 1949, that capital has been provided through lending programs administered by the RUS. Congress initiated the RUS telecommunications lending program because of the dearth of capital available to these companies at reasonable rates and for long terms. This greatly inhibited the ability of the smaller companies to offer telephone service throughout their service territories at reasonable rates, *i.e.*, to provide universal service.

Congress continues to be concerned about the availability of credit to telephone companies serving rural areas. RUS loans are available exclusively for capital improvements, and loan monies are segregated from borrower operating revenues. By statute, loans may not be obtained simply to duplicate facilities that are providing adequate service.

The statutory authority governing the RUS telecommunications program has undergone significant change. In 1993, lending was refocused toward modernizing facilities, and most of the subsidies were eliminated from the program. As the remaining low interest, embedded RUS debt is repaid, it is becoming a smaller portion of the overall capitalization of RUS borrowers. The remaining subsidized funds are targeted to the

³⁰Formerly the Rural Electrification Administration.

highest cost, lowest density systems under strict eligibility criteria. Those funds, which constitute less than 15 percent of the RUS lending authority, are oversubscribed each year, so borrowers must wait until the next fiscal year to obtain funds under the subsidized loan program.

Ironically, even though the purpose of the RUS lending program is to provide capital to rural telephone companies, the restrictions contained in all RUS mortgages have limited the ability of companies to borrow from sources other than the agency. Even when companies manage to obtain an accommodation of the RUS lien—which encumbers all current and future assets of the company—they find it difficult to obtain long-term financing from private lenders. For example, under one RUS program, the agency fully guarantees the principal and interest for privately financed loans. To date, no private lender has taken advantage of the program. Private loans are generally more available for projects less related to interstate access service and therefore less subject to its competitive pressures, technological uncertainty, and limited, regulated returns.

As with other government programs, the RUS telecommunications lending programs are subject to the annual congressional appropriations process. The programs could end at any time, leaving a huge gap in the availability of reasonably priced debt capital for rural telecommunications companies.

Q. What other sources of debt funds are available to small and medium-sized ILECs?

A. For most of the small and medium-sized companies, sources of additional debt capital are quite limited. Vendors, for example, have traditionally provided an alternative to RUS funds, but the cost and short amortization periods of vendor financing limit its usefulness for projects to improve universal service and universal access. Similarly, even when bank credit is available, it is predominantly short term and often carries a variable interest rate tied to the prime loan rate. As a result, bank loans are not well suited to finance substantial system upgrades. In recent years, financial institutions created to serve rural electric cooperatives and the agricultural sector (*e.g.*, National Rural Utilities Cooperative Finance Corporation and CoBank) have provided credit when other sources have been unavailable.

Neither institution, however, has as its primary purpose lending for rural telecommunications purposes. Their resources are limited, and they must lend at rates linked to changing capital market conditions. Thus, commercial banks and financial institutions such as NRUCFC and CoBank are not equipped to serve as primary lenders for smaller ILECs' future needs for long-term debt capital.

Q. How has the recent credit squeeze affected the cost of debt for small and medium-sized carriers?

A. Private placements have historically been a significant source of debt capital for U.S. corporations. While not widely publicized, total issuance of private placements by nonfinancial corporations were nearly 40 percent of that in the public market.³¹ Borrowers in the private placement market are substantially smaller than those in the public market, but larger than firms restricted to the bank loan market for raising funds. Beginning in mid-1990, issuers of below-investment-grade securities encountered a sharp contraction in the availability of credit in the private placement market, largely because of asset-quality problems at life insurance companies, which had previously been the dominant investors. The resulting drop in private placements has been accompanied by a sharp increase in yield spreads on bonds below investment grade: Before 1990, the difference in yields between BB and BBB securities averaged about 100 basis points; since then, the difference has been as high as 250 basis points.³²

In addition, according to recent financial market reports, telecommunications companies that have not previously issued bonds in the high-yield, or "junk," bond market will find it an inhospitable environment. Moreover, companies that successfully float bond issues will have to pay higher rates:

³¹Prowse, Stephen D., "The Economics of Private Placements: Middle-Market Corporate Finance, Life Insurance Companies, and a Credit Crunch," *Economic Review* 12 (Fed. Res. Bank of Dallas) (3d Quarter 1997).

³²*Id.*

“I think we have seen a fundamental change in the cost of funding for these kinds of companies,” says Michael Guarnieri, director of high yield research at Lehman Brothers Inc. “[T]he market will be more disciplined going forward, and only more seasoned telecom companies [*i.e.*, that have previously issued bonds] are going to be able to access the market. For companies that aren’t seasoned, it just won’t be there.”³³

The drop in Treasury bond rates and high-grade publicly traded corporate bond rates thus significantly overstates any fall in interest rates paid by smaller corporate borrowers—including many ILECs subject to rate-of-return regulation. Many of these borrowers may have benefitted little, if any, from the secular drop in interest rates because they are now practically foreclosed from sources of credit that were available to them when the Commission last prescribed a rate of return.

Q. Is it reasonable for smaller, nonpublicly traded telecommunications firms to maintain (or even increase) their relatively high equity ratios?

A. Yes. As discussed earlier, smaller telecommunications firms do not have ready access to capital markets. Although these companies may qualify for RUS loans, this source of funds may not be available when needed. And while alternative lending sources may be a source of short-term funds, their variable rate loans are not well suited to finance substantial capital improvements to a telephone company’s system.

As local exchange carriers with an obligation to serve, ILECs must maintain ready access to capital to meet their customers’ service requirements even during unfavorable capital market conditions. For smaller telecommunications firms, additional equity funding is generally limited to the reinvestment of earnings. As a result, the funds necessary to finance major capital improvements must come largely from issuing additional debt. If these companies allow their capital structures to reach their maximum debt capacity, they effectively cut themselves off from additional funds until they gradually rebuild their equity position by reinvesting earnings. Therefore, to maintain an ongoing

³³Shere, Paul M., “Telecommunications Issues Thaw Junk-Bond Freeze,” *Wall Street Journal* (Nov. 2, 1998).

ability to raise capital for system upgrades, it is essential that the smaller ILECs maintain relatively high equity ratios. Such a capital structure preserves their financing flexibility, which has become especially important in light of the uncertainties posed by the transition to competition in the ILECs' markets.

It is difficult to calculate the conceptually correct market value capital structures for the smaller ILECs because their stock is not traded in public markets where objective price quotes can be readily obtained. Yet there is every reason to believe that the market value of equity exceeds book value for these small telecommunications firms as it does for large companies, since the economic value of equity exceeds the historical book value.

Q. How does the emergence of competition affect the rate of return necessary for ILECs to raise capital?

A. Competition not only raises capital costs by increasing the risk of ILECs business and thus requiring more equity in their capital structures, it introduces additional competitors into the capital markets. CLECs have emerged as major demanders of capital to finance their market entry at a time that many sources of capital to smaller firms have evaporated. A signal from the Commission that returns on interstate access will be falling could well result in both the ILECs and the CLECs being crowded out from the capital markets—at a time when their access to capital is so vital to the national policy of a competitive, state-of-the-art telecommunications infrastructure.

CONCLUSION: 11.25 PERCENT REMAINS A CONSERVATIVE ESTIMATE OF THE COST OF CAPITAL FOR ILECS

Q. In light of the transition to competitive telecommunications markets and the changes in capital market conditions since 1990, what is the net effect on the cost of capital for ILECs?

A. In part the increased competition has caused investors to insist on higher returns on telecommunications company equity relative to traditional utility returns. At the same time, rating agencies have required thicker equity cushions to maintain bond ratings. There

is every reason to believe that these trends will continue in the future and exert upward pressure on the cost of capital for all services provided by the ILECs, including interstate access.

The ILECs currently face a window of vulnerability. On the one hand, their competitors currently have the choice of either bypassing the ILECs' networks entirely or reselling their services. On the other, state and federal regulators are attempting to deal with the public policy goal of universal service in a way that does not penalize the ILECs. And as a related problem, the ILECs face the uncertainty of recovering joint and common costs from competitive services, where future profit margins are unknown. These uncertainties inevitably increase their cost of capital. Any action by the Commission to prescribe too low a rate of return would send a clear and disappointing signal that would discourage investors from providing capital to ILECs and their competitors in the interstate access market. In the end, such an effort would only delay the benefits of competition and technological advancements in the vital telecommunications sector from reaching consumers.

Q. Will you please summarize your conclusions?

A. In light of the ILECs' prospective capital costs, reducing the prescribed rate of return in this proceeding would be ill-advised. Moreover, current rules for prescribing the ILECs' cost of capital are inadequate because they cannot properly reflect the rapid change in telecommunications markets, technology, and regulatory policy initiatives. The unprecedented pace and breadth of change in the industry require revised, state-of-the-art valuation methods if the cost of capital for ILECs is to be accurately determined. The prudent approach would be to delay represcription until after the major regulatory decisions are completed. Otherwise, the Commission would risk ignoring the impact of yet-to-be-defined policy changes on the ILECs' cost of capital. The cost of such a regulatory misstep would fall especially hard on rural ILECs and could compromise their ability to provide comparable service as required by the Telecommunications Act.

Viewed in isolation, the drop in interest rates appears to suggest that equity costs have fallen. Even with no change in relative risks, equity costs decline by less than half the drop in interest rates. But the relative risk of ILECs has clearly been increasing because of competitive and regulatory uncertainties. As for debt costs, the relevant interest rate to ILECs has probably fallen along with Treasury rates, but by a lesser amount because formerly available sources of credit have diminished for many companies. At the same time, the concerns about infrastructure development and the spread of required returns among ILECs that motivated the Commission to go to the high end of the cost-of-equity range in 1990 are even more compelling today.

A broader view of the capital market developments since 1990 thus suggests that ILECs' equity costs may well have increased. Even if they are unchanged or lower, the overall cost of capital is almost certainly greater as a result of the shift toward more equity in capital structures. The end result is that the 11.25-percent rate prescribed in 1990 represents a conservative current estimate of prospective capital costs.

This can be illustrated with a simple example: Assume a 100-basis-point drop in the cost of equity to 12.25 percent (a value unlikely to reflect the competitive risks faced by ILECs), a 7.25-percent cost of debt (a rate below the effective cost for most ILECs in today's debt markets), and a capital structure composed of 80 percent common equity and 20 percent long-term debt (less equity than ILECs will likely maintain in market-value capital structures). The resulting weighted-average cost of capital would be 11.25 percent. Since each input is conservative, the result is likely a very conservative estimate of the cost of capital for ILECs.

Q. Does this complete your direct testimony?

A. Yes, it does.


STATE OF TEXAS

§
§
§

COUNTY OF TRAVIS

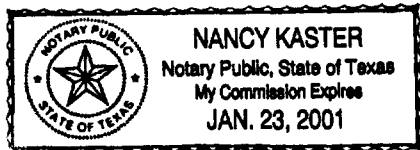
BEFORE ME, the undersigned authority, on this day personally appeared William E. Avera, who being by me first duly sworn, on oath deposes and says:

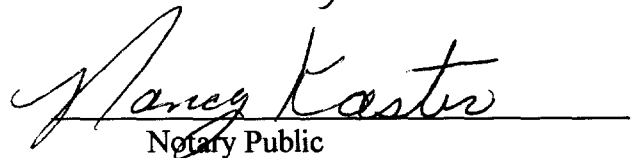
That he is the William E. Avera offering the foregoing prepared document and that all statements of fact contained therein are true and correct to the best of his knowledge, information, and belief.



William E. Avera

Subscribed and sworn to before me this 14th day of January, 1999.




Notary Public